

## CLAIMS

What I claim is:

1. A method of accessing soluble HLA ligand data stored in a database comprising the steps of:
  - providing a database containing soluble HLA ligand data stored therein;
  - providing a means for accessing the database via a remote connection; and
  - providing a means for searching the soluble HLA ligand data stored in the database via the remote connection.
2. A computer system for a soluble HLA ligand database, comprising:
  - a soluble HLA ligand database stored on memory media associated with the computer system, the soluble HLA ligand database having soluble HLA ligand data stored therein; and
  - a data retrieval process that includes instructions for:
    - receiving a request from a requestor for general soluble HLA ligand data and returning the retrieved data to the requestor,
    - receiving a match request from the requestor for soluble HLA ligand data and returning data that matches the match request to the requestor, and

receiving a predictive request from the requestor for soluble HLA ligand data and returning data that matches the predictive request to the requestor.

3. A soluble HLA ligand database assembled according to the methodology comprising the steps of:
  - providing a computer system capable of storing soluble HLA ligand data as a database on a memory media;
  - producing soluble HLA having ligands loaded thereon;
  - isolating the loaded ligands from the soluble HLA;
  - sequencing the loaded ligands to obtain soluble HLA ligand data; and
  - populating the database with the soluble HLA ligand data.
4. The soluble HLA ligand database of claim 3, further comprising the step of linearly manipulating the soluble HLA ligand data in the database.
5. The soluble HLA ligand database of claim 3, further comprising the step of manipulating the soluble HLA ligand data in the database with a predictive algorithm.